

PATENT
Serial No. 09/817,457
Amendment in Reply to Advisory Action of August 8, 2005

IN THE CLAIMS

Please amend claims 1-5 as follows:

1 1. (Currently Amended) A wireless network comprising a
2 | plurality of terminals and an assigned central station, ~~which said~~
3 | network, after receiving requests for the wireless transmission of
4 | packets between transmitting and receiving terminals, ~~during a time~~
5 | ~~multiplex frame, assigns time slots within a following time~~
6 | ~~multiplex frame for the wireless transmission of the packets from~~
7 | the transmitting terminal to the receiving terminal, ~~including~~
8 | steps of wherein said wireless network is configured for:
9 | receiving all the requests for wireless transmission by the
10 | assigned central station;
11 | ~~determining determining~~, from a set of all transmitting
12 | terminals within the network, a first subset of the set comprising
13 | those terminals that intend to transmit packets to a plurality of
14 | receiving terminals, and determining a second subset, which
15 | includes the remaining terminals of the set of transmitting

PATENT
Serial No. 09/817,457
Amendment in Reply to Advisory Action of August 8, 2005

16 terminals, which are not contained in the first subset,
17 | determining an order ~~in which~~ where the transmitting terminals
18 | of the first subset transmit based on a decreasing number of
19 | receiving terminals assigned to each transmitting terminal therein,
20 | subdividing the receiving terminals assigned to each
21 | transmitting terminal of the first subset into a first group such
22 | that the first group includes all the receiving terminals already
23 | assigned to transmitting terminals, and into a second group of
24 | receiving terminals which includes all the other receiving
25 | terminals that are assigned to corresponding ones of said
26 | transmitting terminals, and
27 | determining ~~the~~ a receiving order in the two groups of
28 | receiving terminals in accordance with the transmission order of
29 | the corresponding transmitting terminal, wherein the receiving
30 | terminal of the second group receives transmitted packets first
31 | earlier in time.

1 2. (Currently Amended) A wireless network as set forth in
/2 | claim 1, wherein the assigned central station determines the

PATENT
Serial No. C9/817,457
Amendment in Reply to Advisory Action of August 8, 2005

3 transmission order of the transmitting terminals of the second
4 subset by first selecting all of the transmitting terminals that
5 have not previously been either a transmitting or a receiving
6 terminal, and then selecting all of the transmitting terminals that
7 have not previously been a receiving terminal, and that wherein the
8 transmitting terminals of the second subset transmit either before
9 or after the transmitting terminals of the first subset.

1 3. (Currently Amended) A wireless network as set forth in
2 claim 1, wherein the assigned central station ~~divides the set of~~
3 ~~transmitting terminals of the second subset into a transmission~~
4 ~~order of the first subset such that~~ is configured to select a
5 transmitting terminal for a current time slot which is not defined
6 ~~as a transmitting terminal if it was a receiving terminal in the a~~
7 prior time slot preceding said current time slot, or would be a
8 ~~receiving terminal in the a~~ next time slot following said current
9 time slot, the assigned central station being configured to further
10 select and ~~that a receiving terminal which~~ is not defined as a
11 ~~transmitting terminal in the preceding prior time slot and the~~

PATENT
Serial No. 09/817,457
Amendment in Reply to Advisory Action of August 8, 2005

12 | ~~following next~~ time slot.

1 4. (Currently Amended) A central station included within in a
2 wireless network comprising a plurality of wireless terminals,
3 | ~~which said~~ central station, after receiving requests for the
4 wireless transmission of packets between transmitting and receiving
5 terminals, ~~during a time multiplex frame, assigns time slots in an~~
6 ~~order for packet transmission of a following time multiplex frame,~~
7 ~~wherein after reception of all requests for the wireless~~
8 ~~transmission of packets by the central station, the central station~~
9 ~~implements the following steps~~ is configured for:

10 determining a first subset of a set comprising all of the
11 transmitting terminals in the wireless network, which terminals in
12 said first subset each intend to transmit packets to a plurality of
13 receiving terminals,

14 determining a second subset of transmitting terminals
15 containing a remainder of transmitting terminals of the set not
16 included in the first subset,

17 determining ~~an a~~ transmission order in which the transmitting
18 terminals of the first subset transmit, said transmission order

PATENT
Serial No. 09/817,457
Amendment in Reply to Advisory Action of August 8, 2005

19 | being determined in accordance with the a decreasing number of
20 | receiving terminals assigned to a particular transmitting terminal,
21 | subdividing the receiving terminals assigned to each
22 | transmitting terminal of the first subset into a first group
23 | containing all the receiving terminals already used, and into a
24 | second group which contains all remaining receiving terminals, and
25 | determining the a receiving order in the first group and the
26 | second group in accordance with the transmission order as a of the
27 | corresponding transmitting terminal, wherein the receiving terminal
28 | of the second group is selected for receiving packets first earlier
29 | in time.

1 | 5. (Currently Amended) ~~A method for time slot sorting in a~~
2 | ~~wireless network, comprising the steps of:~~
3 | ~~determining a first subset from a set of all transmitting~~
4 | ~~terminals comprising the network, wherein the determining delegates~~
5 | ~~to the first subset those transmitting terminal that intends to~~
6 | ~~transmit packets to a plurality of receiving terminals,~~
7 | ~~determining a second subset from the set of terminals, wherein~~
8 | ~~the determining delegates all transmitting terminals remaining in~~

PATENT

Serial No. 09/817,457

Amendment in Reply to Advisory Action of August 8, 2005

9 ~~the set which have not been delegated to the first subset,~~
10 ~~defining an order in which the transmitting terminals of the~~
11 ~~first subset transmit in dependence upon the decreasing number of~~
12 ~~receiving terminals assigned to each transmitting terminal therein,~~
13 ~~subdividing the receiving terminals assigned to each~~
14 ~~transmitting terminal of the first subset into a first group, which~~
15 ~~first group contains all the receiving terminals designated as~~
16 ~~transmitting terminals,~~
17 ~~subdividing the receiving terminals not assigned in the first~~
18 ~~subset to a second group; and~~
19 ~~defining a receiving order in the first group and second group~~
20 ~~in accordance with the transmission order of each respective~~
21 ~~transmitting terminal, wherein the receiving terminals of the~~
22 ~~second group receive data first in time~~ A controller for
23 determining a sequence of transmission of a plurality of
24 transceivers, said controller being configured to:
25 receive requests for transmission from said plurality of
26 transceivers;
27 form a first transmitting set including first set transmitters
28 of said plurality of transceivers, each of said first set

PATENT

Serial No. 09/817,457

Amendment in Reply to Advisory Action of August 8, 2005

29 transmitters having requested transmission to a plurality of
30 requested receivers of said plurality of transceivers;
31 determine a first transmitting terminal of said first set
32 transmitters to be a first one of said first set transmitters to
33 transmit, said first transmitting terminal having requested
34 transmission to a largest number of corresponding receivers of said
35 plurality of requested receivers.